

Title (en)

Analytical element for determination of hydrogen peroxide and analytical method using the same.

Title (de)

Analytisches Element zur Bestimmung von Wasserstoffperoxid und seine Verwendung in einem analytischen Verfahren.

Title (fr)

Elément analytique pour la détermination du peroxyde d'hydrogène et méthode analytique l'utilisant.

Publication

EP 0268167 A2 19880525 (EN)

Application

EP 87116412 A 19871106

Priority

JP 27343386 A 19861117

Abstract (en)

Disclosed is an analytical element for determination of hydrogen peroxide, which comprises using an analytical element containing a substance having the action of peroxidation, a compound represented by Formula (I) shown below, and an aromatic primary amine compound, or a salt thereof, capable of forming a dye through the coupling reaction with the compound represented by Formula (I) shown below: <CHEM> wherein Z represents a group of nonmetallic atoms necessary for forming a nitrogen-containing heterocyclic ring, which ring formed by Z may have a substituent; X represents a hydrogen atom or a group capable of being split off through the reaction with an oxidized product of the aromatic primary amine compound; and R represents a hydrogen atom or a substituent. Disclosed is also an analytical method for determination of hydrogen peroxide by use of the above analytical element. As described in the foregoing, the analytical element of this invention can exhibit the remarkable effect that the determination sensitivity can be greatly improved.

IPC 1-7

C12Q 1/26; C12Q 1/28; C12Q 1/34; C12Q 1/52; G01N 33/52

IPC 8 full level

C07D 487/04 (2006.01); **C12Q 1/28** (2006.01); **G01N 31/22** (2006.01); **G01N 33/50** (2006.01); **G01N 33/52** (2006.01)

CPC (source: EP US)

C07D 487/04 (2013.01 - EP US); **C12Q 1/28** (2013.01 - EP US); **G01N 33/521** (2013.01 - EP US); **G01N 33/526** (2013.01 - EP US);
C12Q 2326/00 (2013.01 - EP US); **Y10S 435/805** (2013.01 - EP US); **Y10S 435/81** (2013.01 - EP US)

Cited by

EP0433855A3; US5525480A; EP0433854A3; DE3942357A1; US5234818A; US5457200A

Designated contracting state (EPC)

DE FR GB IT SE

DOCDB simple family (publication)

EP 0268167 A2 19880525; **EP 0268167 A3 19900620**; **EP 0268167 B1 19930922**; JP H0619346 B2 19940316; JP S63127158 A 19880531;
US 4978612 A 19901218

DOCDB simple family (application)

EP 87116412 A 19871106; JP 27343386 A 19861117; US 11779987 A 19871105